TEXTILE TECHNOLOGY DIGEST

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ABSTRACTS

FIBERS A

SKIN-DEEP PROPERTIES OF CELLULOSE FIBERS. J. A. Somers. Textile Recorder 75: 70-72 (May 1957). (1528)

The manner in which the cuticle or skin of a cotton and viscose rayon fiber is formed and the part played by the cuticle in determining fiber properties are examined.

BREAKAGE OF TEXTILE FIBERS. A. Sippel. Rayonne et Fibres Synthet. 12, No. 8: 1111-1115 (1956). In French. Through BCIRA 36: 628 (1956). (1529)

The process of fiber breakage is analyzed and reference is made to the theories of Mark, Staudinger, and Schardin in interpreting the breakage phenomena.

INTERPRETATION OF CREEP FAILURE IN TEXTILE FIBERS AS A RATE PROCESS. B. D. Coleman and A. G. Knox (E. I. du Pont de Nemours & Co.). Textile Research J. 27: 393-399 (May 1957). (1530)

Some theoretical results are presented on the creep failure, under time-dependent tensile loads, of partially oriented polymeric filaments of such materials as drawn nylon, drawn Dacron, rayon, and cotton. Graphs. 10 references.

NATURAL FIBERS A 1

COTTON FIBERS AS MEANS OF TRANSMITTING WATER VAPOR. L. Fourt, R. A. Craig and M. B. Rutherford (Harris Research Labs.). Textile Research J. 27: 362-368 (May 1957). (1531)

The water vapor transmission of fibers was measured by using sections cut from embedments of the fibers in polyacrylic resins. The rate of water vapor transmission, measured as the diffusion constant, was larger for cotton than for rayon, wool, nylon, or Dacron. The results suggest that cotton is a good choice of fiber for high water vapor transmission along the fiber. Tables. Graphs. 8 references.

TECHNOLOGICAL REPORTS ON STANDARD INDIAN COTTONS, 1955. C. Nanjundayya. Indian Central Cotton Comm. Technol. Bull. Ser. A, No. 90: 1-106 (Mar. 1956). (1532)

EGYPTIAN COTTON VARIETIES: DEVELOPMENT. A. Vatter. Textil-Praxis 11, No. 9: 864-867 (1956). In German. Through BCIRA 36: 645 (1956). (1533)

A table is given listing the development of cotton varieties from 1818 (Maco-Jumel) to 1949 (Giza 45). The properties of the varieties developed, as compared with the parent plants, are briefly discussed.

EFFECT OF TEMPERATURE ON THE PHYSICAL AND CHEMICAL DEVELOPMENT OF COTTON FIBER. L. E. Hessler, C. R. Simmons and H. C. Lane (Texas Technological College). Textile Research J. 27: 412-416 (May 1957). (1534)

Cotton fiber development under progressively decreasing seasonal temperatures was studied. Chemical and physical properties of the cotton are presented along with fiber development characteristics as influenced by temperature deficiency of growth. Tables. Graphs. 16 references.

FUTURE OF WOOL. J. B. Speakman. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E531-E545. (1535)

The future of wool as a competitive textile fiber is discussed with emphasis on the link between producer and user and the link between research worker and industrialist. Tables. Graphs. 21 references.

WOOL SCIENCE AND WOOL SUPREMACY. E. G. Carter. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E546-E563. (1536)

Survey of wool fiber structure and its relation to wool properties. Tables. Diagrams. Photomicrographs.

MAN-MADE FIBERS A 2

PCU FIBER. SVF Fachorgan Textilveredlung 11, No. 8: 440-441 (1956). In German. Through BCIRA 36: 579 (1956). (1537)

The chemical, physical, mechanical, processing, and wearing properties and uses of these nonchlorinated polyvinyl chloride fibers are described. Related fibers are Rhovyl and Movil.

PHYSIOLOGICAL PROPERTIES OF TEXTILES FROM POLYACRYLONITRILE FIBERS. O. Mecheels. Melliand Textilber. 37, No. 7: 813-818 (1956). In German. Summary in BCIRA 36: 566 (1956). (1538)

RILSAN. SVF Fachorgan Textilveredlung 11, No. 9: 504-506 (1956). In German. Through BCIRA 36: 678 (1956). (1539)

Mechanical, physicochemical, processing, and wear properties of the French polyamide fiber Rilsan are listed.

USE, PROCESSING, AND FINISHING DIOLEN IN THE U.S., ENGLAND, AND GERMANY. W. Brennecke. Melliand Textilber. 37, No. 9: 1081-1084 (1956). In German. Through BCIRA 36: 623 (1956). (1540)

Diolen, a polycondensation product of terephthalic acid and glycol, is also produced in Germany as Trevira by Hoechst-Bobingen (Terylene in England, Dacron in the U.S., Tregal in France, Terital in Italy, and Terlenka in Holland). The most characteristic physical, chemical, and dyeing properties, on which use, processing, and finishing are based, are discussed and compared with those of Perlon.

REGENERATION OF PROTEIN FIBERS: SOME PRACTICAL ASPECTS. F. Happey. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E431-E438. (1541)

A survey of materials and methods for the production of protein fibers is given, with details of apparatus for spinning fibers on a small scale, by a larger batch process, and a continuous process. Diagrams. Photographs. 21 references.

YARN PRODUCTION B

MAKING WORSTED BLEND YARNS. Officine Sant' Andrea. Skinner's Silk & Rayon Record 31: 512-513 (May 1957). (1542)

The Sant' Andrea machinery series for worsted blend yarns is briefly described and consists of a 4-stage operation, the first three with single-head, high-speed intersecting gill boxes, and the fourth using a finisher drawing frame with multiple heads, rub apron delivery, and special high drafting system, eliminating the porcupine rolls. Comparison with the classic continental system is made. Photographs.

TREATING FLOCK-DYED FIBERS FOR SUBSEQUENT SPINNING. H. H. Plette. Z. ges. Textil-Ind. 58, No. 19: 770-773 (1956). In German. Through BCIRA 36: 650 (1956). (1543)

The possibilities and limitations of the treatment of fibers with special products, which give smoothness and pliability and reduce or eliminate static electricity, are discussed, with special reference to the treatment of cuprammonium rayon and synthetic fibers.

USE OF SILIGEN A IN WORSTED SPINNING. S. Klinger, S. Hoffmann and H. Biczysko. Melliand Textilber. 37, No. 10: 1142-1149 (1956). In German. Through BCIRA 36: 712 (1956). (1544)

By adding Siligen A (a silicic acid sol, product of the BASF) to the spinning oil, it is possible to spin worsted yarns with higher tensile strength and improved regularity. Mineral oil softeners are shown to be better than olein-based spinning oils.

PROCESSING METALLIC YARNS. Man-Made Textiles 33: 46-47 (May 1957). (1545)

Recommended mill practices in twisting, warping, pirning, and weaving Lurex are briefly described. Photographs.

OPENING, PICKING, FIBER PREPARATION B 1

STOCK BLENDER. Curtis & Marble Co. Modern Textiles Mag. 38: 58 (May 1957). (1546)

Features of the Curtis & Marble raw stock blender are described. Photograph.

SRRL SUPER COTTON OPENER. J. Lighthill (Ircast Foundries Ltd). Textile Wkly. 57: 1259-1262 (May 3, 1957). (1547)

This brief survey of the Southern Regional Research Laboratory opener includes its history, mechanism, working details, prospects for the future, and a description of an opening room installation at Tweedales & Smalley Ltd. Photograph.

MODERNIZATION OF PRE-OPENERS AND PICKERS IN A DUTCH SPINNING AND WEAVING MILL. L. Visscher. Textil-Praxis 11, No. 10: 967-973 (1956). In German. Summary in BCIRA 36: 712 (1956). (1548)

EXAMINATION OF THE PEDAL MOTIONS ON PICKERS. A. L. Feigenberg. Tekstil. Prom. 16, No. 7: 28-32 (1956). In Russian. Through BCIRA 36: 615 (1956). (1549)

Correct adjustment of the pedal motion on pickers is shown to be a means of ensuring regular laps. A method for pedal motion control is suggested.

CARDING AND COMBING B 2

CARD CLOTHING NUMBERING. K. Rodehacke. Spinner u. Weber 74, No. 18: 797-798 (1956). In German. Through BCIRA 36: 615 (1956). (1550)

The European numbering of card clothing (based on wire thickness) is compared with the English numbering based on the density of staples per unit surface.

WIRE DENSITY ON ROLLER CARDS. J. Unger. Textil-Praxis 11, No. 10: 983-985 (1956). In German. Through BCIRA 36: 712 (1956). (1551)

The number of staples per unit area varies with the diameter of the rollers and the height of the clothing. Therefore, the count of the wire is a comparable criterion for card clothing only in conjunction with the roller diameter.

CONTINUOUS STRIPPING DEVICE FOR WOOLEN CARDING. Redshaw & Co. Ltd. Textile Recorder 75: 58-59 (May 1957). (1552)

Construction, advantages, and possibilities of a continuous cleaning device consisting of a steel cleaning roller applied to each of the swifts and doffers, covered with a special patent long knee wire set in groups related to the diameter of the roller to be covered. Photographs. Diagram.

SPINNING PROPERTIES AND COMBING OF LANON POLYESTER FIBERS AND BLENDS. G. Nitschke. Textil- u. Faserstofftech. 6, No. 8: 355-359 (1956). In German. Through BCIRA 36: 583 (1956). (1553)

The spinning properties of Lanon polyester fibers and experiences with combing these fibers alone and in mixtures with wool and rayon staple are discussed, with special reference to fiber distribution in the mixed slubbings and in short sections of the mixed yarns. The short mean staple length of the wool component in mixtures with Lanon (100 mm staple length) has no adverse effect on the equalization of the yarns and variations in the mixing ratios as compared with Lanon/rayon staple fibers with uniform staple length.

THEORETICAL EXAMINATION OF THE PERFORMANCE OF COMBING SEGMENTS USED ON HEILMANN COMBERS. A. Monostori. Acta Technica Academiae Scientiarum Hungaricae 12, Nos. 1/2: 3-48 (1955). In English. Through BCIRA 36: 681 (1956). (1554)

The number of layers in the sliver lap to be combed and variations occurring during the combing process are determined, assuming a purely geometrical fiber arrangement, i.e. invariable specific fiber density and constant interfiber friction. From the specific amount of short fibers removed, the degree of combing attained, and the variation in the rate of short-fiber removal along the segments, an equation is derived for the condition of a segment yielding a predetermined degree of combing. The basic principles governing the design of needle rows for segments fed with uniform short-fiber loads are discussed.

RIETER LAP CONVERTER. J. Rosselet. Melliand Textilber. 37, No. 10: 1131-1132 (1956). In German. Through BCIRA 36: 713 (1956). (1555)

The E2/4 model shows a series of innovations which ensure a better preparation of the cotton lap for combing and for the ribbon lap machine. The most important advantages are: automatic and pneumatic nipping of the lap, pneumatic lowering and lifting of the guide heads, and pneumatic lap compression.

ELECTRONIC REGULATOR FOR THE SLIVER LAP MACHINE. R. Bolant. Industrie Textile: 643-645 (Sept. 1956). In French. Summary in BCIRA 36: 681 (1956). (1556)

NEP FORMATION ON ROLLER CARDS. J. W. Gruschwitz. Melliand Textilber. 37, No. 8: 896 (1956). In German. Through BCIRA 36: 581 (1956). (1557)

Faults in card setting, positions of the individual card components, velocities of worker and clearer, number of wire clothing, and sliver width, etc., can cause nep formation.

DRAWING AND ROVING B 3

DRAFTING FORCE THEORY. S. S. Kovner. Tekstil. Prom. 16, No. 2: 26-31; No. 8: 20-24 (1956). In Russian. Through BCIRA 36: 713 (1956). (1558)

The problem of drafting-force determination in the light of Soviet investigations and a series of experiments carried out in recent years are discussed theoretically. 18 references.

FALSE TWIST IN SLUBBING OR ROVING. P. I. Aristov. Tekstil. Prom. 16, No. 7: 32-34 (1956). In Russian. Through BCIRA 36: 616 (1956). (1559)

By imparting false twist to slubbing or roving and controlling the tension, it is possible to increase the weight of the package by 8%, decrease the irregularity on short sections by 10-12%, reduce the number of breakages, and increase the velocity (to 900 rpm) on intermediate frames.

EFFECT OF ROVING FRAME CONTROL ON THE REGULARITY OF ROVING AND YARN. W. Wegener and R. Peuker. Melliand Textilber. 37, No. 10: 1133-1139 (1956). In German. Through BCIRA 36: 713 (1956). (1560)

Long-period count variations in roving are caused by the unavoidable false draft on the frame. A method for determining this false draft and maintaining it constant is described.

SPINNING, WINDING, TWISTING B 4

CLEANING DEVICES FOR THE DRAWING SYSTEM OF RING SPINNING FRAMES. E. Weber. Textil-Praxis 11, No. 9: 881-883 (1956). In German. Through BCIRA 36: 650 (1956). (1561)

The new cleaning device with lateral fly-intercepting rings and stripping calenders (Deutscher Spinnereimaschinenbau, Ingolstadt) can be used on new and old draw-frames by adjusting the bearing to the shape of the clearer roll holder. The device is described and illustrated and its advantages discussed.

WORSTED SPINNING AND TWISTING. H. A. McLean. Wool Record 91: 935, 937 (Apr. 25, 1957). (1562)

Methods of simplifying twist wheel changes are explained.

DRAFTING ROLL NEEDLE BEARINGS ON THE NEW DUTCH RING-SPINNING MACHINE SPINNMASTER. W. T. Jekel. Melliand Textilber. 37, No. 9: 1018-1019 (1956). In German. Through BCIRA 36: 616 (1956). (1563)

Work-saving, quality-improving, and technical advantages of these bearings as compared with the usual friction bearings are discussed.

MODERNIZATION PROBLEMS IN COTTON SPINNING. G. Schmalfuss. Spinner u. Weber 74, No. 18: 794-795 (1956). In German. Through BCIRA 36: 616 (1956). (1564)

The development of high draft and the use of highest draft on ring-spinning machines, and the changes resulting from it in spinning mills, are discussed, with reference to abridged spinning and reduced spinning costs.

RING-SPINNING MACHINE. A. Friedrich. Melliand Textilber. 37, No. 8: 897-900; No. 9: 1019-1020; No. 10: 1132-1133 (1956). In German. Through BCIRA 36: 713 (1956). (1565)

Directions are given for preventing spinning defects and faulty machine setting, and conditions for improving yarn quality and increasing production are discussed.

YARN TENSION DURING TWISTING. P. J. M. van Gorp. Tex 15, No. 8: 1087-1088 (1956). In Dutch. Through BCIRA 36: 618 (1956). (1566)

Factors affecting yarn tension during twisting are reviewed, and means for equalizing yarn tension are enumerated, with special reference to self-lubricating rings which reduce the tension between traveler and ring and increase production by 10-12%.

CHEESE WINDING MACHINE WITH MINIMUM INTERFERENCE TIME. K. Härtel. Melliand Textilber. 37, No. 9: 1021-1023 (1956). In German. Through BCIRA 36: 618 (1956). (1567)

A new cheese winder (Franz Müller model NK5) is described, which has reduced servicing time and increased winding rates. Illustrations.

FANCY TWISTER WITH PHOTOELECTRICALLY CONTROLLED ELECTROMAGNET COUPLINGS. W. Kotte. Spinner u. Weber 74, No. 18: 798-799 (1956). In German. Through BCIRA 36: 617 (1956). (1568)

Constructional details and the mechanism of this machine (Berliner Textilmaschinen GmbH) for the production of knop, bouclé, flame, loop, etc., yarns are described and a coupling diagram is given.

NOMATEX DOUBLE-TWIST TWISTING MACHINES FOR COARSER YARNS. Tex 15, No. 8: 1077-1078 (1956). In Dutch. Through BCIRA 36: 618 (1956). (1569)

RING AND RING TRAVELER: DETERMINATION OF YARN TENSIONS IN THE SPINNING AND WINDING-ON-ZONE OF RING-SPINNING AND RING-TWISTING MACHINES. H. Stein. Textil-Praxis 11, No. 8: 771-778 (1956). In German. Through BCIRA 36: 583 (1956). (1570)

By inserting recording instruments between eyelet and delivery rolls, it is possible to study yarn tensions in the spinning and winding-on-zones of ring-spinning and ring-winding machines. Yarn tension peaks often considerably exceed the mean value. This causes excessive stresses which result either in increased breakage or in an adverse effect on yarn elongation properties. Yarn tension oscillograms show the magnitude of short-period yarn tension impulses. Diagrams show that a spindle eccentrically located in the ring or an incorrectly adjusted yarn guide eyelet can lead to traveler instability and great fluctuations in yarn tension.

RINGS AND RING TRAVELERS: TYPES EMPLOYED IN WORSTED SPINNING. Wool Record 91: 998, 1001 (May 2, 1957). (1571)

TRAVELER CHOICE FOR HEAVY RING TWISTING MACHINES. R. Struve. Z. ges. Textil-Ind. 58, No. 19: 754-757 (1956). In German. Through BCIRA 36: 651 (1956). (1572)

Diagrams are given from which it is possible to predetermine the traveler weight required for a given yarn. The values given were mostly obtained from practical experiences with travelers made from various materials (composition, bronze, steel, polyamide) and with different diameters (96, 120, 140, 180, 250 mm). The behavior of cotton, rayon, synthetic, wool, hair, flax, hemp and ramie, rayon staple, jute, and asbestos fibers during twisting for coarser end-counts is briefly outlined.

YARNS B 5

BLENDS FROM WOOL AND CHEMICAL FIBERS. PART 5. THERMAL STABILITY. H. Zahn and E. Kratzsch. Melliand Textilber. 37, No. 9: 1059-1064 (1956). In German. Through BCIRA 36: 632 (1956). (1573)

Wool-Perlon, wool-Dralon, and wool-Diolen yarn blends were heated dry at temperatures varying from 120° C to 160° C for 2-16 hours (heat-ageing tests). After each heating test, the dry tensile strength and elongation at break were measured on the cooled yarn and the alkali-solubility was tested on some samples treated under extreme conditions. Tables. Diagrams.

NYLON 6 AS CARPET STAPLE. British Celanese Ltd. Skinner's Silk & Rayon Record 31: 553, 555 (May 1957). (1574)

The physical and chemical properties of Celon CQ (nylon 6) carpet staple are described. Photographs. Table.

NYLON 66 AND NYLON 6 COMPARED: THE GERMAN VIEW. F. Fourne. Man-Made Textiles 33: 48-49 (May 1957). (1575)

The most important technological data for the two fibers are given in a table, and their applications for various end-uses on the basis of their technical differences are discussed.

BETTER NYLON ROPE. D. Himmelfarb and W. J. Kaes (Boston Cordage Associates). Modern Textiles Mag. 38: 46, 48, 87 (Apr. 1957). (1576)

Advantages of a new type of rope structure, showing outstanding success in eliminating strand kinking deformations, which uses a balanced plied cord in place of the singles Z-twist yarn. Diagrams.

EFFECTS OF OILS ON RUBBER THREADS KNITTED OR WOVEN INTO A FABRIC. H. Reumuth and H. Dräger. Textil-Praxis 11, No. 8: 811-813 (1956). In German. Through BCIRA 36: 599 (1956). (1577)

Photomicrographs show the destruction of rubber threads in sock tops or similar articles. This is not due to the constriction by the synthetic fibers surrounding the rubber threads but to local oil effects on the rubber itself. The destruction proceeds very rapidly in dry heat.

SOILING CHARACTERISTICS OF TEXTILE FIBERS. PART 3. EFFECT OF TWIST ON SOIL RETENTION. A. S. Weatherburn and C. H. Bayley (National Research Council). Textile Research J. 27: 358-361 (May 1957). (1578)

The effect of twist on soil retention was studied for a series of acetate yarns containing 34 filaments of 3.5 den./filament. With increasing twist, soil retention first increased to a maximum, and then decreased to values below that of the untwisted yarn. Microscopic examination of the soiled yarn indicated that at 20 turns/in. visible soil particles had penetrated to the center of the yarn, whereas at 60 turns/in. the soil was located on the exterior surface only. Table. Graphs. Photomicrographs. 6 references.

STRETCH, TEXTURED, AND HIGH-BULK YARNS. A. Wilhelm. Melliand Textilber. 37, No. 9: 1045-1049 (1956). In German. Through BCIRA 36: 618 (1956). (1579)

The characteristics of stretch, textured, and high-bulk yarns are described, and a table is given listing their names, properties, uses, raw materials, manufacturers, American terminology, diagrammatic illustration and description of their production, and photographs of the finished product.

EFFECT OF THE WEIGHING MECHANISM ON YARN REGULARITY. E. Sattler. Melliand Textilber. 37, No. 7: 776-778 (1956). In German. Through BCIRA 36: 581 (1956). (1580)

The sensitivity of various weighing mechanisms (for example, in picking) is discussed and factors affecting the weighing accuracy and yarn regularity are pointed out, with special reference to the effect of the moisture content of the material fed.

YARN HAIRINESS: THE INFLUENCE OF TWIST. A. Barella. J. Textile Inst. 48: P268-P280 (Apr. 1957). (1581)

The various causes which determine yarn hairiness are studied with particular reference to the influence of twist. A theory of the causes of hairiness in cotton, worsted, and spun rayon yarns, which is based on the work of Morton and Yen concerning the migration of fibers in yarns, is outlined. The hairiness of two-fold and woolen yarns is also examined. Tables. Graphs. 13 references.

FABRIC PRODUCTION C

WARPING, SLASHING, YARN PREPARATION C 1

JUTE WARPS: PREPARATION PROBLEMS. Textile Recorder 75: 60-61 (May 1957). (1582)

Some common practical difficulties encountered in the preparation and starching of jute warps are discussed, and suggestions made as to how they can be avoided or minimized. Photographs.

SIZING OF SYNTHETIC FILAMENTS AND YARNS. W. Falk. Rayonne et Fibres Synthet. 12, No. 8: 1081-1092 (1956). In French. Through BCIRA 36: 619 (1956). (1583)

The development of sizing processes for synthetic filaments and yarns and available sizing agents are reviewed, with reference to methods used, control measures, use of organic solvents, and equipment.

LIQUID EXTRACTION FROM WARP BEAMS BY MEANS OF IMPULSE CURRENTS. R. Burgholz. Melliand Textilber. 37, No. 10: 1225-1229 (1956). In German. Through BCIRA 36: 715 (1956). (1584)

Factors involved (permeability, winding hardness) and advantages (quality improvement and economy) are discussed in the light of extensive practical experiments and experience.

DETERMINATION OF YARN DRAFT ON SIZING MACHINES. N. A. Naumov. Tekstil. Prom. 16, No. 8: 32-34 (1956). In Russian. Through BCIRA 36: 715 (1956). (1585)

A review of methods for measuring (and a formula for calculating) warp yarn draft on sizing machines. Accurate results are obtained only by determining simultaneously the parameters for sized and unsized yarns by means of two completely identical and calibrated devices.

RUTI SMALL SIZING MACHINE MODEL LSMAK. A. J. Gasser. Melliand Textilber. 37, No. 10: 1149-1152 (1956). In German. Summary in BCIRA 36: 715 (1956). (1586)

DIRECT SECTIONAL WARPING. C. Lavelle. Industrie Textile: 583-584 (Aug. 1956). In French. Through BCIRA 36: 619 (1956). (1587)

Two methods are described for avoiding the crossing of threads during sectional warping.

WEAVING C 2

AUTOMATIC PICK AND PICK LOOM. Brit. Northrop Loom Co. Ltd. Textile Recorder 75: 74-75 (May 1957). (1588)

The Schwabe Jura loom produces high quality woolen, worsted, and fancy cloths in pick-and-pick, colored checks, or other constructions. An independent drop box motion, accommodating up to five shuttles, is fitted at each side, and the loom is capable of weaving with a total of 9 shuttles. Photographs.

NEW CLOSED SPRING DOBBY. R. Hünlich. Tex 15, No. 8: 1094-1095 (1956). In Dutch. Through BCIRA 36: 619 (1956). (1589)

The dobby (Dutch patent No. 915 800) is described and illustrated.

MECHANIZATION OF THE SHED-FORMING ELEMENTS IN JACQUARD WEAVING. M. Paul. Melliand Textilber. 37, No. 9: 1025-1028 (1956). In German. Through BCIRA 36: 620 (1956). (1590)

Mechanized production of point-paper designs (two-color and multi-colored), photoelectric actuation of the card-punching machine by the point-paper draft or its substitute, and direct operation and new constructions of jacquard machines are discussed.

TAKE-UP MOTIONS. J. Schneider. Z. ges. Textil-Ind. 58, No. 19: 758-764; No. 21: 835-840 (1956). In German. Through BCIRA 36: 716 (1956). (1591)

Cloth take-up motions with positive and negative drives are reviewed.

ASTRA UF LOOM FOR WIDE SPECIAL FABRICS. H. Fussel. Melliand Textilber. 37, No. 10: 1154-1160 (1956). In German. Through BCIRA 36: 716 (1956). (1592)

Construction details are given of the Astra UF for the production of 20-m wide felt cloth. The loom has a higher productivity than previous models.

VALENTIN AUTOMATIC DEVICES FOR LOOMS. C. Zeh. Spinner u. Weber 75, No. 20: 944-945 (1956). In German. Through BCIRA 36: 686 (1956). (1593)

Descriptions and illustrations are given of two automatic bobbin exchangers and an automatic shuttle-changing device, of which the first and last can be fitted on over- and underpick looms, while the second is applicable only to underpick looms, preferably those with the picker fixed to the picking stick.

CONTROL OF WEFT BOBBINS ON THE LOOM. J. Schneider. Melliand Textilber. 37, No. 8: 902-909 (1956). In German. Through BCIRA 36: 585 (1956). (1594)

The development of, and stipulations for, the construction of bobbin feelers are reviewed, with reference to mechanical, electromechanical, and electrical types. Some special constructions for terry, drop-box, and crank-buckskin looms are briefly described and illustrated. Diagrams. Photographs.

KNITTING C 3

COLORFASTNESS IN KNITTED GOODS: PRACTICAL ASPECTS. L. A. Telesz (Hosiery & Allied Trades Res. Assoc.). Hosiery Times 30: 19-23 (May 1957). (1595)

Factors affecting the choice of dyes for achieving colorfastness in knit fabrics are briefly reviewed, including wet processing, finishing, storage, display, washing and dry cleaning conditions, sunlight and perspiration, and methods of testing.

WHAT'S HAPPENING IN KNITTING. Modern Textiles Mag. 38: 71-77, 85 (May 1957). (1596)

Today's trends in outerwear, by C. Reichman, p. 71-73; Upgrading underwear fabrics, by O. B. Beckwith, p. 74; Improvements in hosiery knitting, by G. A. Urlaub, p. 75-77, 85.

KNITTING OF FANCY TWIST YARNS. J. B. Lancashire. Hosiery Times 30: 24-27 (May 1957). (1597)

Mechanical factors to be considered and fabric modifications possible in knitting fabrics from fancy twist yarns of the bouclé, slub, knop, and loop varieties are discussed. Photographs.

MODERN CIRCULAR PIECE-GOODS MACHINES. A. Kirkland & Co. Ltd. Hosiery Trade J. 64: 68-71 (May 1957). (1598)

This survey of the Kirkland range of circular piece-goods machines covers features of latch needle piece-goods circular models with single cylinder for producing plain jersey and float-plated fishnet (Fleximesh) fabrics, and latch needle piece-goods circular models with cylinder and dial for making eyelet, rib, and double jersey fabrics. Photographs. Diagrams.

FABRICS C 4

FABRIC CONTROL AND MARKING OF DEFECTS. H. G. Jakob. Reyon Zellwolle Chemiefasern No. 9: 632-638 (1956). In German. Through BCIRA 36: 701 (1956). (1599)

Various types of cloth-inspection and cloth cleaning machines for use in weaving sheds and finishing plants and devices and methods for marking fabric defects are reviewed.

PLASTIDRY FIRE HOSE. A. P. L. Sullivan. Skinner's Silk & Rayon Record 31: 508 (May 1957). (1600)

Plastidry hose for water, foam, oil, acids, alkalis, and other substances and liquids, consists of a synthetic fiber tube lined and covered with polyvinyl chloride, and fused into a single plastic mass.

FIBERS, FABRICS AND BODY COMFORT. L. L. Leach (E. I. du Pont de Nemours & Co.). Can. Textile J. 74: 59-65 (May 3, 1957). (1601)

Factors relating to fabric comfort, fiber contributions to comfort, and experiences in methods of evaluation are discussed. 11 references.

FELTS FROM MAN-MADE FIBERS. H. G. Lauterbach (E. I. du Pont de Nemours & Co.). Skinner's Silk & Rayon Record 31: 524-525 (May 1957). (1602)

The research approach that led to the development of synthetic felts is explained. Photographs.

TECHNICAL FABRICS AND FABRIC GROUPS. PART 4. G. Kothe. Textil-u. Faserstofftech. 6, No. 9: 397-401 (1956). In German. Through BCIRA 36: 655 (1956). (1603)

The author discusses the development and characteristics of filter cloths. Setting and manufacturing data are given for various fabrics and end-uses, together with photographs showing characteristic weaves.

POLYURETHANE FOAM CHALLENGES TEXTILES FOR NUMEROUS USES. Am. Textile Reptr. 71: 9-11, 39-42 (May 23, 1957). (1604)

The growing use of urethane foam for interlinings, as well as in other textile areas such as rug underlays, mops, bath mats, comforters, sleeping bags, pillow filling, handwork mitts, weather stripping, upholstery, etc., is discussed. Information on cost and production figures, manufacturing details, properties, producers, and users is included.

TAR-LIKE STAINS IN COTTON FABRICS. O. Titscher and H. P. Hartenhauer. Textil- u. Faserstofftech. 6, No. 9: 395-396 (1956). In German. Through BCIRA 36: 668 (1956). (1605)

The occurrence of these stains, their causes, and their removal from cotton fabrics are discussed, with reference to the experiences gained by the German Research Institute for Textile Technology in cooperation with the textile industry. Photomicrographs.

FUTURE OF NONWOVENS. W. E. Brennan (Am. Viscose Corp.). Am. Textile Reptr. 71: 87-90 (May 16, 1957). (1606)

Present and potential web forming methods, bonding agents and techniques, and end-uses for nonwovens are briefly summarized.

TERYLENE POLYESTER FIBER AND THE RUBBER INDUSTRY. K. J. Westrop. Rubber J. 131, No. 19: 588, 590-594; No. 20: 621-623 (1956). Through BCIRA 36: 729 (1956). (1607)

The physical and chemical properties of high tenacity Terylene filament yarn are discussed, with particular reference to the heat setting of Terylene cords and the adhesion of rubber to Terylene. Applications of Terylene in the manufacture of conveyor belting, hoses for water, oil, steam, etc., and tires are reviewed.

PHOTOCHEMICAL DEGRADATION OF COTTON FABRICS. I. Rusznak, M. Fehervari and F. Deak. Magyar Textiltech. No. 7: 255-257 (1955). In Hungarian. Through BCIRA 36: 702 (1956). (1608)

The degradation of cotton under the influence of light, air, and moisture was studied by determining the degree of polymerization, copper number, and carboxyl groups of nitrated samples (one bleached and two dyed). Results showed that the rate of degradation was lowest for the cotton fabric dyed red (Chloramine Red 8B), somewhat higher for the blue (Chloramine Blue FF) fabric, and highest for the undyed sample. This indicates that the degradation rate of cellulose during irradiation may be checked to a certain extent by the oxygen consumption of the oxidizable dye.

AUTOMOTIVE FABRICS: FACTORS WHICH AFFECT LIGHTFASTNESS. C. H. A. Schmitt (Sandoz, Inc.). Am. Dyestuff Reptr. 46: P351-P364 (May 20, 1957). (1609)

The relative lightfastness of various fibers and their location within the fabric in relation to fastness requirements is explained, as well as the influence of latex backings on shade and light stability and the relation of copper content of dyestuffs to this problem. Methods used to evaluate lightfastness and the variables which occur in suntesting are discussed, and a few examples of the work by the special AATCC committee which has been studying the problem are explained in some detail. Photographs. 6 references.

FINISHING AND CHEMICAL PROCESSING D

CHEMICAL PROCESSES D 1

CARBONIZING INVESTIGATIONS. PART 2. UPTAKE OF SULFURIC ACID BY WOOL AND BY TREFOIL BURR. T. A. Pressley. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E389-E397. (1610)

CARBONIZING INVESTIGATIONS. PART 3. NEW METHOD FOR PROTECTING WOOL DURING CARBONIZING. W. G. Crewther. Proc. Internat. Wool Textile Res. Conf. Australia 1955. E408-E420. (1611)

Anionic, cationic, and nonionic wetting agents added to the acid liquor are equally effective in providing adequate protection over a wide range of concentrations. Graphs. Tables. Photograph. 10 references.

ABSORPTION OF SULFURIC ACID BY BURRS OF MEDICAGO MINIMA AND ITS SIGNIFICANCE IN THE CARBONIZING PROCESS. G. Jones. Proc. Internat. Wool Textile Res. Conf. Australia 1955. E398-E407. (1612)

CONTINUOUS TWO-STAGE OPEN-WIDTH DESIZING, SCOURING, AND BLEACHING INSTALLATION. H. Pierling. Melliand Textilber. 37, No. 10: 1197-1202 (1956). In German. Through BCIRA 36: 718 (1956). (1613)

The installation is described and illustrated by flow sheets.

BLEACHING WITH SODIUM CHLORITE. M. Tvede. Tidsskr. Textiltek. 14, No. 8: 95-105 (1956). In Danish. Through BCIRA 36: 621 (1956). (1614)

Review covering the chemistry of sodium chlorite and the activation of the bleaching liquor; recipes for bleaching cotton, viscose rayon, and synthetic fibers; advantages and disadvantages of chlorite bleaching; machines required and the installation of continuous plants for piece-goods and hank-bleaching with sodium chlorite and for open-width bleaching (Svetema-system). 41 references.

COATED FABRIC APPLICATIONS. Skinner's Silk & Rayon Record 31: 500-504, 507-509, 517-522 (May 1957). (1615)

Survey of British coated fabric applications, p. 500-503; Coated nylon covers cut cargo damage, by R. J. Scheetz, p. 507-508; Synthetics in German coated fabrics, p. 508; Future potentials of coated fabrics, by P. Abbenheim, p. 517-522. Photographs.

TEXTILE COATING WITH PLASTICS. H. Berger. Spinner u. Weber 75, No. 19: 877-879 (1956). In German. Through BCIRA 36: 658 (1956). (1616)

Methods of application and the polymerizates and polycondensates used (acryl and methacryl derivatives, vinyl chloride and its copolymers, vinyl acetate and its copolymers, polyethylene, polyisobutylene and urea resin condensation products) are reviewed, and a table is given listing some properties of these plastic coating agents.

ACID AND ALKALI RESISTANCE OF PARTIALLY ACETYLATED COTTON FABRICS. E. Honold, E. J. Keating and E. L. Skau (Southern Regional Res. Lab.). Textile Research J. 27: 400-411 (May 1957). (1617)

In order to evaluate the potentialities and limitations of partially acetylated fabrics, systematic data were obtained on the acid resistance of a series of acetylated fabrics by following the changes in selected properties as affected by concentration of the acid, duration of exposure, temperature, and by the acetyl content of the fabric. For alkaline solutions, the data obtained were less complete but nevertheless showed trends indicative of the property changes which might be expected. Tables. Graphs. 7 references.

LABORATORY APPARATUS FOR CHEMICAL MODIFICATION OF COTTON YARN. N. A. Cashen, E. M. Buras, Jr. and A. M. DuPré, Jr. (Southern Regional Res. Lab.). Textile Research J. 27: 390-392 (May 1957). (1618)

A laboratory apparatus for the chemical processing of cotton yarn, which utilizes the excellent heat transfer characteristics of liquid metals to control temperature and minimize problems of local overheating in exothermic reactions, is described. Advantages are cited, principal of which is excellent control of temperature and time of treatment. Diagram. 8 references.

HAVE PERMANENT FINISHES ADVANCED FROM THE PHYSICOCHEMICAL TO THE CHEMICAL PHASE? R. Blot. Industrie Textile: 665-669 (Sept. 1956). In French. Through BCIRA 36: 691 (1956). (1619)

The development of permanent finishes since 1844 is reviewed, with special reference to methods of application, and possibilities offered by the new creaseproofed cotton fabrics bearing the label "wash and wear," "no-iron," "minimum care," etc.

ROLE OF THE DETERGENT-ACTIVE SUBSTANCE IN THE WASHING PROCESS. H. Schwerdtner. Textil- u. Faserstofftech. 6, No. 8: 371-375 (1956). In German. Through BCIRA 36: 601 (1956). (1620)

The author discusses the problem of free and bound portions of the detergent-active substance (at pH 7 and 11 in the absence or presence of soil), the effect of polyphosphate addition, and the quantitative desorption and concentration relationships in the rinsing process. The values obtained for the changes in the concentration of an alkyl sulfate solution give valuable information as to the adsorption processes taking place.

VARIABLES IN PADDING MACHINES: APPLICATION OF DYES AND FINISHES. S. J. Luscian (Am. Cyanamid Co.). Can. Textile J. 74: 59-62 (May 17, 1957). (1621)

Results of laboratory and mill investigations into the effect of variables in the use of padding machines and in the application of dyes and finishes (e.g. cloth, dyebath or finishing bath, and padder variations) on moisture pickup and preferential absorption. 5 references.

PLASTICS DISPERSIONS IN TEXTILE FINISHING. H. Friedrich. Spinner u. Weber 75, No. 19: 867-869 (1956). In German. Through BCIRA 36: 658 (1956). (1622)

Review of the use of aqueous dispersions of polymerizates in crease-resistant finishes and coatings, mixed polymerizates, synthetic latex, filling finishes, waterproofing, stability to washing and increased abrasion resistance, other butadiene mixed polymerizates, and padding with pigment dyes by using dispersions of plastics as binding and/or fixing agents.

KIERING COTTON FABRICS BEFORE BLEACHING AND DYEING. P. Girard. Industrie Textile: 657-661 (Sept. 1956). In French. Through BCIRA 36: 688 (1956). (1623)

Boiling-off methods (at normal and increased pressure) are reviewed.

ANTIMICROBIAL ADDITIVES. L. S. Stuart. Soap Chem. Specialties 33: 95-101, 233 (May 1957). (1624)

Review of the status of bacteriostatic and fungistatic treatment of paints, plastics, rubber, textiles, and paper under the Federal Insecticide, Fungicide, and Rodenticide Act. Products to which chemical agents are added to control fungi, bacteria, and insects may be considered as economic poisons depending on the effects claimed. 4 references.

MECHANICAL EFFICIENCY OF WASHING METHODS: EVALUATION. S. V. Vaeck and A. Van Nuffel. Teintex 21, No. 8: 605-633 (1956). In French. Summary in BCIRA 36: 600 (1956). (1625)

The effect of mechanical agitation on soil removal was studied. The results obtained indicated that soil removal obeys the same laws both in industrial laundering and in the Launderometer. The quantity of soil removed during the first few minutes generally increased with increasing agitation, but the total amount varied according to the nature of the fabric and the detergent used. 35 references.

CHAINLESS MERCERIZATION OF PIECE GOODS. W. T. Swatek. Melliand Textilber. 37, No. 10: 1215-1218 (1956). In German. Through BCIRA 36: 721 (1956). (1626)

Constructional details and mechanism of the Benninger mercerizing machine are described. The machine prevents shrinkage during alkali treatment, thus eliminating subsequent stretching of the fabric. Other advantages are reduced power consumption, higher productivity, and less fabric damage.

MILDEWPROOFING CELLULOSIC FIBERS. J. Bourel. Industrie Textile: 599-604 (Aug. 1956). In French. Through BCIRA 36: 626 (1956). (1627)

The microorganisms which attack cellulosic fibers, physical and chemical means for preventing deterioration and microbiological attack, their practical application, and methods for testing the mildew and rot resistance of textiles are reviewed. References.

ACTION OF HEXAMETHYLENETETRAMINE ON GREASY WOOL AND ITS EFFECT ON SCOURING AND CARBONIZING. M. Oku and I. Shimizu. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E384-E388. (1628)

MOTHPROOFING OF WOOL. PART 1. APPLICATION OF ANIONIC SURFACE ACTIVE AGENTS. M. Lipson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E514-E522. (1629)

A range of anionic surfactants has been found to impart moth-resistance to wool. The surfactants are fast to drycleaning, but washfastness is unsatisfactory, and lightfastness is low. Tables. 6 references.

MOTHPROOFING OF WOOL. PART 2. EFFECT OF DIELDRIN AND RELATED COMPOUNDS. M. Lipson and R. J. Hope. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E523-E530. (1630)

Low concentrations of Dieldrin will protect wool from moth-larval attack, even after prolonged washing and drycleaning. Endrin gives similar results, but Aldrin is not as satisfactory. Tables. 9 references.

SHEEP-BRANDING FLUIDS. M. Lipson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E376-E383. (1631)

The financial loss resulting from the use of non-scourable sheep-branding fluids is reviewed, and improvements with L. B. E. and SI-RO-MARK branding fluids are described. Tables. 9 references.

RECOVERY OF LANOLIN FROM WOOL SCOUR LIQUORS. C. A. Anderson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E363-E375. (1632)

Results of industrial scale tests of recovery of lanolin by the aeration process of Evans and Ewers are given. Graph. Tables. Diagrams. Photograph. 7 references.

SCOURING OF RAW WOOL. F. O. Howitt. Proc. Internat. Wool Textile Res. Conf. Australia 1955. E315-E330. (1633)

Physico-chemical aspects of the detergent action of soap-soda systems, mechanical factors in scouring, and analytical methods related to scouring are considered. Graphs. Diagrams. Photomicrographs.

METHOD FOR SOLVENT DEGREASING OF WOOL. J. F. Sinclair. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E347-E362. (1634)

A pilot plant for pressure jet extraction of wool with cold white spirit is described. Graphs. Diagrams. Photographs. 4 references.

SOLVENT SCOURING OF RAW WOOL: NEW METHOD. J. Lindberg and S. Ekegren. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E342-E346. (1635)

A Swedish plant for scouring of raw wool with petroleum fractions is described. The solvent scoured wool gives 20% longer fibers after carding, and less waste. Flow diagram.

EFFECT OF CASEIN SHRINKPROOFING TREATMENTS ON THE PROPERTIES OF WOOL. D. L. C. Jackson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E452-E459. (1636)

Treatment of wool with casein and formaldehyde for the purpose of preventing felting not only eliminates felting shrinkage but also increases its alkali resistance and tensile strength. Tables. 8 references.

PREVENTION OF FELTING WITH RESINS AND THE SIGNIFICANCE OF PRETREATMENT. D. L. C. Jackson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E439-E451. (1637)

Resins applied in the preformed or polymerized state and an organo-silicon resin, polymerized in presence of the wool, were not effective in eliminating felting unless the wool had received a pretreatment. Polyglycine, applied so that it was covalently attached, was effective with or without pretreatment. Polyurea, polymerized in presence of the wool, was more effective when the wool was chemically pretreated than when it was ethanol-extracted. Tables. 25 references.

PILOT-SCALE SHRINKPROOFING TREATMENTS OF WOOL. PART 1. APPLICATION OF METHOXYMETHYL NYLON. J. Delmenico. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E489-E501. (1638)

PILOT-SCALE SHRINKPROOFING TREATMENTS OF WOOL. PART 2. IMPROVED TREATMENT WITH ALCOHOLIC ALKALI. J. Delmenico. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E502-E513. (1639)

CHEMICAL SHRINKING OF FABRICS. F. Hagen. Melliand Textilber. 37, No. 10: 1208-1209 (1956). In German. Through BCIRA 36: 721 (1956) (1640)

Reference is made to processes for resin deposition and to the equipment (particularly dryers) required.

SHRINK-RESISTING WOOL A. N. Davidson and R. Preston. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E472-E488. (1641)

Following a brief discussion of methods for the production of shrink-resisting wool fabrics, a recently introduced modification of the Perzyme method is described. Tables. Graph. 37 references.

WAYS IN WHICH RESINS PREVENT FELTING. K. R. Makinson. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E460-E471. (1642)

Microscopic examination shows that the four different mechanisms by which felting is prevented are: fiber-bonding (polyamide, casein, melamine formaldehyde); scale-masking by a continuous, smooth film of resin (silane); scale-masking by a rough deposit of resin (polyurea); and destruction of the frictional difference along the fiber (polyglycine). Photomicrographs.

SILICONES IN THE TEXTILE INDUSTRY. H. Eder. Spinner u. Weber 75, No. 19: 861-864 (1956). In German. Through BCIRA 36: 659 (1956). (1643)

This review covers silicone impregnating agents for textiles, the suitability of textiles for the treatment, the properties of silicone-impregnated textiles, the use of silicone impregnating agents in drycleaning plants, coating with silicone rubber, the use of silicones as antifrothing agents, and silicone lubricants.

PRIMENIT VS ANTI-SOILING COMPOUND. Farbwerke Hoechst AG. Skinner's Silk & Rayon Record 31: 556 (May 1957). (1644)

Primenit VS is recommended as an anti-soiling agent for cellulosic carpets and acts by making the fibers more hydrophobic and, therefore, less liable to wet soiling.

YELLOWING TENDENCY OF VISCOSE RAYON MODIFIED BY OXIDATION. C. J. Pinte and P. Rochas. Bull. Inst. Textile France No. 61: 27-36 (June 1956). In French. Through BCIRA 36: 726 (1956). (1645)

Samples of viscose rayon treated with periodate, hypochlorite, and chlorite were stored for a prolonged period and the degree of yellowing was determined photocolorimetrically. Yellowing (after 3 years) was associated with the presence of aldehyde and ketone radicals in the 2,3 position. The experiments proved that sodium chlorite treatment improves the whiteness of accidentally modified fabrics and that bleaching with chlorite produces permanent whiteness does not alter on storage.

WATER-REPELLENT FINISHING OF POLYACRYLONITRILE FIBERS. R. Keppler. Textil-Praxis 11, No. 9: 921-924 (1956). In German. Through BCIRA 36: 659 (1956). (1646)

The best effects are obtained with silicone impregnation, which has a high resistance to washing and dry cleaning. The two-bath treatment is, as in the case of natural fibers, superior to the single-bath impregnation. Polyacrylonitrile fibers respond better to this finishing treatment than cellulose acetate fibers and, owing to their more open structure, exhibit better water-repellency. There is no direct relationship between water-repellency and dyeability of the fibers.

APPLICATION OF SILICONE RESINS. R. Serey. Rayonne et Fibres Synthet. 12, No. 8: 1107-1109 (1956). In French. Through BCIRA 36: 626 (1956). (1647)

Special waterproofing emulsions based on silicones are available under the names of Rhodorsil or Decetex and can be applied to nylon and viscose, alone, and in mixtures with cellulose acetate. The method of application and suitable catalysts are described.

APPLICATION OF FLUOROCHEMICALS TO COTTON FABRICS TO OBTAIN OIL AND WATER REPELLENT SURFACES. F. J. Philips, L. Segal and L. Loeb (Southern Regional Res. Lab.). Textile Research J. 27: 369-378 (May 1957). (1648)

The application of some fluorocarbon compounds to cotton textiles to impart oleophobic and hydrophobic surface characteristics to the materials was investigated. Data are presented to show the relative effectiveness of several classes of fluorocarbon compounds as satisfactory repellency treatments for cotton fabrics, and that modification of the cellulosic fabric surfaces by use of perfluorocarbon compounds considerably improves the resistance of the fabrics to wetting, not only by water but also by organic liquids of low surface tension. Tables. Photographs. 15 references.

WATER PROCESSES IN WOOLEN MANUFACTURE. Textile Recorder 75: 68-69, 72 (May 1957). (1649)

The relationship of water and wool on an internal (regain, absorption, etc.) and external (where water acts as a carrier in dyeing and finishing processes) basis is discussed. 6 references.

DYEING AND PRINTING D 2

DYEING TRUE TO PATTERN. W. Schön. Textil- u. Faserstofftech. 6, No. 8: 375-377 (1956). In German. Through BCIRA 36: 589 (1956). (1650)

Difficulties encountered in reproducing a color according to the pattern are discussed.

DISPERSE DYES FOR COLORING ACETATE KNITTED GOODS. Hosiery Times 30: 41-46 (May 1957). (1651)

The nature and characteristics of disperse dyes, methods of applying them to acetate knitwear, and their gas fading and O-fading properties are discussed. Graphs. References.

DYEING OF NON-WOOL BLENDS. L. Biggins. SVF Fachorgan Textilveredlung 11, No. 8: 420-424; No. 9: 497-502 (1956). In German. Through BCIRA 36: 689 (1956). (1652)

Problems encountered in dyeing blends of viscose with cotton, cellulose acetate, and nylon, and of nylon with cellulose acetate and natural silk are discussed.

NEW DEVELOPMENTS IN DYEING SYNTHETIC FIBERS. H. Rinke. Melliand Textilber. 37, No. 10: 1187-1194 (1956). In German. Through BCIRA 36: 720 (1956). (1653)

Chemical and dyeing problems associated with fibers from polycondensates (polyamide, polyester, and polyurethane) and polymerization polymers (polyacrylonitrile, polyvinylidene cyanide, polyvinyl alcohol, polyethylene, and isotactic polymers, and tetrafluoroethylene) are discussed. 16 references.

DYEING OF SYNTHETIC FIBERS AND THEIR BLENDS WITH WOOL OR CELLULOSE. H. Blättermann, R. Koch and H. Meier. Z. ges. Textil-Ind. 58, No. 20: 809-815; No. 21: 842-845 (1956). In German. Through BCIRA 36: 719 (1956). (1654)

Review of methods for dyeing polyamide fibers with acid, disperse, chrome, metal complex, vat, substantive, and diazotized dyes; high-temperature dyeing of polyacrylonitrile alone and in mixtures with wool and cellulose fibers; dyeing of polyester fibers alone and with wool, with disperse dyes for the polyester fibers and acid, chrome, or metal-complex dyes for the wool constituent. A selection of suitable dyes is listed for each group.

DYEING POLYAMIDE FIBERS (PARTICULARLY RILSAN). P. Cordillot. Teintex 21, No. 10: 815-821 (1956). In French. Through BCIRA 36: 720 (1956). (1655)

All polyamide fibers can be dyed with acid or direct dyes at conventional temperatures and normal dyeing times by the use of anionic emulsifying agents, such as Dilatine DB and CH, which have great affinity for polyamides.

MECHANISM OF CARRIER ACTION IN DYEING DACRON POLYESTER FIBER. M. J. Schuler (E. I. du Pont de Nemours & Co.). Textile Research J. 27: 352-358 (May 1957). (1656)

Carrier-dyeing phenomena in an essentially nonaqueous system (isooctane saturated with water), where homogeneity of the dye bath phase permitted specification of carrier and dye concentration, were investigated. Results indicate that water and various organic carriers increase the internal mobility of the Dacron polymer chains, thereby increasing diffusibility of dye molecules within the fiber phase. The rate of diffusion of dye molecules in the fiber is controlled by the dye activity in the bath, and not its concentration. Diagram. Graphs. Tables. 8 references.

CARRIER AND HIGH TEMPERATURE DYEING OF POLYESTER FABRICS. C. Heinrich. Melliand Textilber. 37, No. 10: 1202-1205 (1956). In German. Through BCIRA 36: 720 (1956). (1657)

The disadvantages of carrier-dyeing are enumerated and the development of high temperature dyeing machines is discussed.

GROWTH AND MECHANICS OF PADDER CONSTRUCTION. D. V. Guillemette (Cook Machine Co.). Can. Textile J. 74: 63-66 (May 17, 1957). (1658)

The history of the development of padders is outlined. Their component parts, deflection, and problems of suitable wall thickness are discussed. A description of the ideal modern padder and its probable future design is included.

DYEING CHEMICAL FIBERS ON RHOMBIC BOBBINS. G. Sahm. Melliand Textilber. 37, No. 9: 1071-1072 (1956). In German. Through BCIRA 36: 622 (1956). (1659)

The problem of dyeing artificial fibers has been solved by a special method of precision cross-winding on rhombic bobbins, and a special thread-guiding system. The rhombic bobbins wound on the Bikomat/Präkomat model have a shore hardness of 15-20°. The mechanism is described.

PIGMENT DYES AND BINDING AGENTS, WITH SPECIAL REFERENCE TO THE HELIZARIN-F METHOD. K. Craemer. Textil-Praxis 11, No. 8: 832-836 (1956). In German. Through BCIRA 36: 589 (1956). (1660)

The conditions for satisfactory dyeing and high uniformity of end product are reviewed. The padding and drying installations, fixation, and possibilities and limitations of pigment-pad dyeings are discussed.

STREAKY VISCOSE RAYON DYEINGS: CAUSES AND ANALYSIS. R. Loss. SVF Fachorgan Textilveredlung 11, No. 9: 487-492 (1956). In German. Through BCIRA 36: 689 (1956). (1661)

The structure of a viscose filament is explained and the factors affecting the diffusion rate of dye molecules into the fiber (type of skin surface, degree of orientation, micelle size, and degree of polymerization) are discussed. Analytical methods are given to ascertain the causes of nonuniform dyeing from differences in cross-section, orientation, and swelling of various parts of the fabric. In addition to manufacturing conditions, mechanical changes of the yarn during further processing and the presence of foreign bodies can lead to differences in dye absorption. Methods are briefly described for testing the shrinkage, difference in contraction of weft and warp, and presence of foreign substances.

FASTNESS OF DYES FOR SYNTHETIC FIBERS DURING THERMOSOL DYEING AND THERMOFIXING. F. Weber. Textil-Praxis 11, No. 10: 1034-1036 (1956). In German. Through BCIRA 36: 720 (1956). (1662)

Tables are given to show the heat resistance of various disperse dyes on nylon, Orlon 42, and Dacron fibers, direct dyes on nylon, acid dyes on nylon, basic dyes on polyacrylonitrile (Orlon 42) fibers, and chromium complex dyes on nylon fibers.

DYEING WITH PIGMENT DYES AND BINDING AGENTS. PART 2. K. Craemer. Textil-Praxis 11, No. 9: 902-907 (1956). In German. Through BCIRA 36: 656 (1956). (1663)

The Helizarin F pigment pad-dyeing process is described, and the processing of Helizarin-dyed cloth, the fastness properties of Helizarin dyeings, and application of the method in printing book-binding fabrics, furnishing and curtain materials, etc., is discussed.

PIGMENT DYEING. M. D. Ferré. Ingenieria Textil 23, No. 118: 24-29 (1956). In Spanish. Through BCIRA 36: 589 (1956). (1664)

Methods of pigment dyeing with vat dyes are reviewed, with reference to suitable equipment and dyeing conditions (preparation of the goods, choice of dyes, effect of the volume of the dye bath, etc.).

DYEING PROPERTIES OF ACID WOOL DYES. H. Egli and M. Perrig. Tinctoria 53, No. 10: 430-434 (1956). In Italian. Through BCIRA 36: 719 (1956). (1665)

The absorption curves, migration power, and positions of maximum intensity of various acid wool dyes are determined by a chromatographic method and shown in diagrams.

SELVAGE PRINTING. K. Everling. Spinner u. Weber 74, No. 18: 803-804 (1956). In German. Through BCIRA 36: 624 (1956). (1666)

The technological and commercial aspects of selvage printing (trade-mark, order-number, special texts, etc.), if possible in connection with the printing of length measurements (at distances of, for example, 1/2 meter), are discussed.

COMPARISON BETWEEN VISCOSE RAYON AND COTTON: VAT DYEING. J. Henderson. SVF Fachorgan Textilveredlung 11, No. 8: 425-432 (1956). In German. Through BCIRA 36: 589 (1956). (1667)

After a brief review of the structure of cellulose fibers, the author discusses the main physical differences between cotton and viscose and their different behavior during dyeing with vat dyes. Special tables are given showing the absorbability of vat dyes on viscose at 20° C. The changes occurring during dyeing at high temperatures are described and practical advice is given for controlling the temperature during dyeing of viscose and cotton. 10 references.

MECHANICAL PROCESSES. D 3

CONTROL OF THE RAISING EFFECT. K. Schicktanz. Melliand Textilber. 37, No. 10: 1211-1212 (1956). In German. Through BCIRA 36: 721 (1956). (1668)

Various factors (raising agent--teasels or wire, moisture content, raising method, cloth tension) are discussed.

AUTOMATION IN THE RAISING ROOM. R. R. Clegg (Tomlinsons (Rochdale) Ltd). Textile Merc. 136: 720-721 (Apr. 26, 1957). (1669)

Cloth handling equipment for tandem or line raising is discussed.

REDUCING NAPPING WASTE. R. Steidl. SVF Fachorgan Textilveredlung 11, No. 9: 476-479 (1956). In German. Through BCIRA 36: 692 (1956). (1670)

Two factors affecting the waste from napping (manner of drying and composition of the finishing bath) are examined. Experimental results show that drying with superheated steam (Dungler system) causes lower waste as compared with hot-air or even cylinder drying. The waste can be reduced, when drying by the last two methods, by addition of starch ethers or alginates to the finishing bath. Although a good napping effect does not depend on the waste alone, it was observed that flannels with the lowest napping waste have a fuller and more voluminous feel than those with a high napping loss.

DRYING D 4

EXAMINATION OF THE UNIFORMITY OF DRYING PROCESSES BY MEANS OF FREQUENCY DISTRIBUTION. PART 1. R. Burgholz. Textil-Praxis 11, No. 8: 803-807 (1956). In German. Through BCIRA 36: 593 (1956). (1671)

The most important quality criterion for a drying process is the uniformity of the moisture distribution over the width and length of the material passing through the drier. It is postulated that the material should be doffed at least in hygroscopic equilibrium state. The method described is based on statistical evaluation of the values obtained by measuring continuously the residual moisture of the fabric leaving the drier.

GRAPHICAL REPRESENTATION OF AIR-VAPOR MIXTURE CONDITIONS FOR SOLVING TECHNICAL DRYING PROBLEMS. H. Vits. Reyon Zellwolle Chemiefasern No. 8: 536-541 (1956). In German. Through BCIRA 36: 593 (1956). (1672)

A temperature/air-content/pressure diagram is given for the system water vapor-air from which, in contrast to the usual enthalpy-moisture diagrams, the physical parameters of evaporation processes can be read off for any mixing ratio and pressure. Equations are given for determining the new variables resulting from mixing two vapor-air mixtures. 7 references.

TESTING AND MEASUREMENT E

LIFE AND WORK OF ALOIS HERZOG. P. A. Koch. Z. ges. Textil-Ind. 58, No. 17: 678-682 (1956). In German. Through BCIRA 36: 627 (1956). (1673)

The life story of Alois Herzog, who was the first to introduce textile microscopy, is described and his 204 publications are listed.

MICROSCOPE IN THE SERVICE OF TEXTILES. J. A. Jacquemart. Bull. Inst. Textile France No. 60: 65-72 (May 1956). In French. Through BCIRA 36: 627 (1956). (1674)

The use of the microscope in the identification of fibers, determination of qualities, study of changes in fibers, detection of the effects of certain treatments, and the detection of foreign bodies is discussed, and reference is made to the necessary equipment.

SIMPLE METHOD AND GRAPHICAL REPRESENTATION FOR ESTIMATING THE MINIMUM NUMBER OF TESTS NECESSARY IN A SERIES OF MEASUREMENTS. R. Schutz and S. Marguier. Bull. Inst. Textile France No. 60: 73-79 (May 1956). In French. Through BCIRA 36: 630 (1956). (1675)

The method is based on tracing the curves representing "progressive means" (arithmetical means obtained progressively as the number of individual values of experimental results increases) as a function of the number of tests. An example is given referring to the application of this method in comparing two different sizes on the same yarn (with respect to the dynamometric properties of the yarn).

FIBERS E 1

CHARACTERIZATION OF FIBER CRIMP. F. Girard. Rayonne et Fibres Synthet. 12, No. 10: 1444-1457 (1956). In French. Through BCIRA 36: 724 (1956). (1676)

The method described makes it possible to evaluate quantitatively the following crimp characteristics regardless of the tension applied: crimp frequency, amplitude of the waves, and resistance of fibers to decrimping. Data obtained for raw wool, crimped viscose, and nylon fibers are tabulated.

METHODS FOR STUDYING FIBER STRUCTURE. K. Schwertassek. Textil-Praxis 11, No. 8: 762-767 (1956). In German. Through BCIRA 36: 595 (1956). (1677)

In this review the author discusses the iodine-absorption method for detecting crystallization phenomena in cellulose fibers, its use for polyamide fibers to study the effects of steam fixation, and the effect of the fixing process on iodine sorption. The methods of critical solution concentration and of testing the swelling phenomena at the end of fiber sections are also outlined. 20 references.

IMPROVED FIBER ROTATOR. E. C. Banky and S. B. Slen (Canada Dept. of Agri.). (Letter to the editor). Textile Research J. 27: 417-418 (May 1957). (1678)

Construction of rotator for studying the surface structure of textile fibers or determining the fiber cross-sectional area by nondestructive means in the field of a high power microscope.

COTTON TESTING. PART 2. RELATIONSHIP BETWEEN FIBER FINENESS AND FIBER STRENGTH. B. M. Talpay. Textil-Praxis 11, No. 9: 863-864 (1956). In German. Through BCIRA 36: 664 (1956). (1679)

It is shown that there is no correlation between fineness and strength of fibers within one batch of cotton. The uniformity of a batch can be evaluated from the graphical representation of micronaire values and Pressley indexes in a rectangular co-ordinate system.

AUTOMATIC STAPLE LENGTH MEASURING DEVICE. R. Hünlich. Melliand Textilber. 37, No. 10: 1130 (1956). In German. Through BCIRA 36: 724 (1956). (1680)

The new apparatus (manufactured by Siegfried Einöhrl, Vienna) arranges cotton fibers in equal groups from the shortest to the maximum fiber length and places them on a black velvet ribbon. The fibers are exposed to a parallel light beam, and the light, reflected at a certain angle, is intercepted by a photocell. The intensity of the reflected light depends upon the amount of fibers; the magnitude of the induction is amplified and registered in a curve reproducing the frequency of the various fiber lengths in the material tested.

PRESSLEY INDEX AND ITS CORRECTION. F. Hadwich. Melliand Textilber. 37, No. 10: 1139-1142 (1956). In German. Through BCIRA 36: 725 (1956). (1681)

Two different methods of correcting the Pressley index obtained experimentally (tensile strength/weight of a fiber bundle) are described, and variations in the final results caused by applying the different corrections are pointed out. A standard procedure is recommended, using a test cotton whose "nominal" Pressley value does not exceed (a) its determined Pressley index and (b) that of the cotton to be tested by more than a certain specified value (proposed Pressley index: 0.7=7,700 lb./sq. inch).

DETERMINATION OF RESIDUAL MINERAL ACIDS IN WOOL OR WOOLEN GOODS: NEW METHOD. M. Oku and I. Shimizu. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E421-E424. (1682)

RAPID METHODS FOR THE IDENTIFICATION OF TEXTILE FIBERS. M. L. Bumiller. Reyon Zellwolle Chemiefasern No. 9: 612-617 (1956). In German. Through BCIRA 36: 695 (1956). (1683)

Review, with table listing the solubility behavior of polyamide, mixed polyamide, polyurethane, polyvinyl chloride, after-chlorinated PVC, vinyl chloride/vinylidene chloride, acrylonitrile, and vinyl acetate copolymerizates, polyvinyl-formal, polyacrylonitrile, polyester, cellulose acetate, polyethylene, and polytetrafluoroethylene fibers. 32 references.

RAPID METHODS FOR CONTROL IN WOOL WASHING. D. P. Veldsman and R. C. Palmer. Proc. Internat. Wool Textile Res. Conf. Australia 1955. p. E331-E341. (1684)

Rapid methods for industrial control of wool washing are described for residual grease, alkali, and soap in washed wool, grease content of effluent, and water content of centrifuged wool grease. Tables. Graph. Diagram. 8 references.

GRAVIMETRIC ESTIMATION OF MEDULLA IN WOOL. D. A. Ross and J. B. Speakman (Leeds Univ.). Textile Research J. 27: 345-351 (May 1957). (1685)

A gravimetric estimation of the amount of medulla in wool can be made by determining the amount of residue left after samples of known dry weight have been treated with a 1.6% solution of peracetic acid for 48 hr. at 25° C, followed by a 1.0 N solution of ammonia for 24 hr. at 25° C. 10 references.

APPLICATION OF ULTRAMICROTOMY TO THE STUDY OF THE FINE STRUCTURE IN VISCOSE RAYON FIBERS. P. Kassenbeck. Bull. Inst. Textile France No. 61: 7-15 (June 1956). In French. Through BCIRA 36: 726 (1956). (1686)

The new double-cutting technique described makes it possible to obtain ultrathin sections (100-300 Å) of viscose rayon fibers. Electron microscopic examination of these sections shows the structural differences between skin and core. Photomicrographs. 18 references.

PARADIMETHYLAMINOBENZALDEHYDE TEST FOR DETECTING CHANGES IN WOOL DUE TO OXIDATION. G. Decroix, G. Mazingue and M. Van Overbeke. Bull. Inst. Textile France No. 61: 47-54 (June 1956). In French. Through BCIRA 36: 728 (1956). (1687)

It was observed that the blue coloration with p-dimethylaminobenzaldehyde appears more rapidly in oxidized wool than in nondegraded wool. This reaction was utilized as a characteristic test in detecting changes in wool due to oxidation. The test can be applied only to undyed wool.

DIFFERENTIAL STAINING OF CORTICAL CELLS FROM THE ORTHO- AND PARACORTEX OF WOOL. M. Leveau. Bull. Inst. Textile France No. 60: 61-64 (1956). In French. Through BCIRA 36: 700 (1956). (1688)

Analysis of the two cortical fractions of wool fibers has been carried out by differential staining with Lactophenol Blue. Photomicrographs.

COLORIMETRIC DETERMINATION OF TRYPTOPHANE IN WOOL. G. Mazingue, G. Decroix and M. Van Overbeke. Bull. Inst. Textile France No. 61: 37-46 (June 1956). In French. Through BCIRA 36: 728 (1956). (1689)

The method described is based on the development of a red color in the presence of an aldehyde (e.g. p-dimethylaminobenzaldehyde) as soon as hydrolysis of the wool takes place. This eliminates the interference of other colorations due to degradation products of wool. The method can also be applied to modified wools.

MOLECULAR ORGANIZATION IN KERATINS. PART 2. DENSITIES OF NATIVE KERATINS. R. D. B. Fraser and T. P. MacRae. Textile Research J. 27: 384-390 (May 1957). (1690)

An apparatus for rapid density determinations by flotation method is described. Densities of a representative series of keratins are reported and used to assess relative crystallinity. The measured densities are compared with those predicted by various models of α-keratin structure. Diagram. Graph. Tables. 19 references.

YARNS E 2

WOOL BLENDS IN WORSTED SPINNING. F. Maillard, O. Roerich and E. Amouroux. Bull. Inst. Textile France No. 61: 17-26 (June 1956). In French. Through BCIRA 36: 725 (1956). (1691)

A method for the chemical analysis of wool/nylon and wool/rayon staple fiber blends is proposed (caustic soda and formic acid are used as solvents for wool and nylon) by means of which it is possible to determine the heterogeneity of these blends and the distribution along the yarn, and to study the effect of artificial-fiber percentages on variations in the mass, apparent diameter, and twist.

QUANTITATIVE ANALYSIS OF BLENDS FROM WOOL AND REGENERATED CELLULOSE (VISCOSE AND CUPRAMMONIUM FIBERS). E. Frieser. Textil-Praxis 11, No. 8: 755-760 (1956). In German. Through BCIRA 36: 596 (1956). (1692)

For fiber analysis, all foreign substances (fats, oils, sizes, and also creaseproofing agents) must be quantitatively removed without damage to the fibers. The author examines methods for removing urea resins from impregnated fabrics, and reviews quantitative methods for separating the components in yarn blends of wool and regenerated cellulose fibers, referring to control tests on the component to be dissolved and to quantitative examination of the insoluble portion. Correction factors for the individual methods are listed and the results are discussed. The modified formic acid/zinc chloride method is proposed as standard method. The reagent was found to dissolve completely all three rayon staple fiber types tested.

TEX: UNIVERSAL YARN NUMBERING SYSTEM. A. W. Bayes. J. Textile Inst. 48: P255-P267 (Apr. 1957). (1693)

Report on the development, applications, and acceptance of the tex system.

YARN STRENGTH AS A FUNCTION OF THE PROPERTIES OF THE RAW MATERIAL. A. Martin. Industrie Textile: 627-630 (Sept. 1956). In French. Through BCIRA 36: 700 (1956). (1694)

The formulas developed by J. Duerst and E. Berkley for predicting yarn strength on the basis of fiber properties as indicated by the Pressley, micronaire, torsiometer, and dynamometer tests are not generally applicable because of differences in testing techniques and in the material itself (e.g. in the U.S. the dynamometric tests are carried out on yarn hanks, while in France they are made on single threads).

MEASURING ELECTROSTATIC CHARGES ON RUNNING FILAMENTS. O. Lochmüller. Faserforsch. u. Textiltech. 7, No. 9: 408-412 (1956). In German. Through BCIRA 36: 666 (1956). (1695)

A method for measuring electrostatic charges on running filaments is described, based on the use of a single-thread electrometer provided with special measuring heads which make it possible to determine the total charge on the thread. Two measuring heads, whose mechanisms are described, were developed for this purpose; on the basis of these mechanisms, they are defined as "integration" and "differential" measuring heads.

APPARATUS WITH RADIOACTIVE REGISTERING DEVICE FOR CONTROLLING SLIVER IRREGULARITY. K. D. Pismannik and S. S. Shvyrev. Tekstil Prom. 16, No. 7: 49-52 (1956). In Russian. Through BCIRA 36: 631 (1956). (1696)

The radioactive method for measuring sliver irregularity consists in stretching the sample to be examined between the source of radioactive beta-radiation and the apparatus for measuring the radiation intensity (ionization cell or beta-counter). The radiation intensity decreases in dependence of the surface density (mass of surface unit) of the sample through which the rays pass. This apparatus makes it possible to measure and record sliver irregularity. It also automatically obtains the variation coefficient. The apparatus can also be used, with slight modification, for measuring the irregularity of roving and yarns of medium counts.

STATISTICAL RISKS IN APPLYING RELATIVE RULES OF ARBITRATION TO COUNTS OF WORSTED YARNS. H. Breny. Bull. Inst. Textile France No. 60: 37-49 (May 1956). In French. Through BCIRA 36: 630 (1956). (1697)

The importance of sample size in testing is examined.

FABRICS E 3

CORRELATION OF THE ALKALI SOLUBILITY OF WOOL AND ITS RESISTANCE TO ABRASION. K. Lees and F. F. Elsworth. Proc. Internat. Wool Textile Res. Conf. Australia 1955. 1 p. E425-E430. (1698)

Although, for a given chemical treatment, there is a correlation between the alkali solubility of wool and its resistance to abrasion, different treatments, giving rise to the same alkali solubility, may have widely different effects on abrasion resistance. A new method of determining abrasion resistance is also described. Graphs. Tables. 7 references.

CREASE-RESISTANT PROPERTIES OF FABRICS WITH VARIOUS STRUCTURES. S. Ikeda and S. Okajima. Textil-Praxis 11, No. 10: 999-1002 (1956). In German. Through BCIRA 36: 728 (1956). (1699)

Fabric samples with different weaves were woven from the same yarn in weft and warp; the thread density was the same for all 29 samples tested. Their crease-resistances in warp and weft direction were measured by the improved Tootal-Broadhurst-Lee method, and empirical relationships were established between the two values. Formulas are given for calculating the crease-resistance of a fabric from its structure.

TEST METHODS FOR TARPAULINS. F. Izmay. Magyar Textiltech. No. 9: 328-330 (1955). In Hungarian. Through BCIRA 36: 702 (1956). (1700)

Tests have been carried out by clamping a 25 x 25 cm specimen, rolled into a tube-like shape, in a creasing apparatus, twisting it at first in one and then in the other direction through 2 x 360°. This is repeated 10 times, then the specimen is turned through 90° and the whole procedure is repeated. The water permeability test is then carried out by means of a Mariotte flask lifted at the speed of 100 mm per minute, and stopped when a level of 200 mm has been reached. Water volumes permeating the tarpaulin in 10, 20, 30, etc., minutes are recorded.

ACCELERATED AGEING TESTS FOR LATEX-BACKED FABRICS: NEED FOR STANDARDIZATION. R H. Boggs and M. Taitel. Am. Dyestuff Reptr. 46: 345, 350 (May 20, 1957). (1701)

The problems involved in standardizing testing procedures for accelerated ageing of latex-backed fabrics are highlighted by describing some of the complex conditions that exist, citing some of the tests now being used, and emphasizing the lack of correlating data. Tables. 1 reference.

AIR PERMEABILITY DETERMINATION: APPLICATION OF FLOAT FLOW-METERS (ROTAMETERS). J. Dechant. Faserforsch. u. Textiltech. 7, No. 9: 418-420 (1956). In German. Through BCIRA 36: 667 (1956). (1702)

The measuring principle of rotameters is described, and a conversion formula is derived which contains a constant to be determined experimentally from the ratio of the inertia and the air-resistance forces. This formula is applicable to rotameters in which the ratio is independent of the position of the float. It is also shown by examples that the amount of air flowing through the fabric at a constant vacuum depends upon the pressure of the air.

ECLATOMETER: BURSTING STRENGTH TESTER. P. Michel. Rayonne et Fibres Synthet. 12, No. 9: 1269-1282 (1956). In French. Through BCIRA 36: 667 (1956). (1703)

The mechanism and construction of a modified Eclatometer (bursting strength tester) are described, and it is shown that the apparatus can be used for determining the "bursting potential" of a fabric, which is directly related to the sum of the bursting resistances in warp and weft direction and is expressed by a formula.

LUNOMETER FOR DETERMINING DIMENSIONAL CHANGES IN TEXTILES. H. Jörder. Textil-Praxis 11, No. 10: 1028-1030 (1956). In German. Through BCIRA 36: 728 (1956). (1704)

This line-grating (made by Peter Luhn, Wuppertal, Barmen) consists of an unbreakable 20 cm. long Plexiglas plate with an engraved line system and three scales for reading off the number of threads or stitches per length unit. It is only applicable to fabrics with a line structure.

POINT DYNAMOMETER: A SIMPLE TEXTILE TESTER. Melliand Textilber. 37, No. 8: 974-975 (1956). In German. Through BCIRA 36: 598 (1956). (1705)

The principle and construction of a point dynamometer for testing the tensile strength of fabrics is described. The apparatus is suitable for use in production control and in dealing with complaints. Diagrams. Photographs.

EVALUATING THE CHEMICAL AND MECHANICAL WEAR OF CELLULOSIC FABRICS BY DEGREE OF POLYMERIZATION. Bull. Inst. Textile France No. 61: 85-99 (June 1956). In French. Through BCIRA 36: 729 (1956). (1706)

Methods for measuring the degree of polymerization or fluidity, as a criterion for the chemical degradation of cellulosic fabrics during washing and bleaching, are reviewed, with special reference to the variations in the mechanical resistance of the treated fabrics and to physical factors causing decrease of the degree of polymerization (or increase of fluidity). 25 references.

RANDOM TUMBLE PILLING TESTER. E. M. Baird, L. C. Legere and H. E. Stanley (E. I. du Pont de Nemours & Co.). Am. Dyestuff Reptr. 46: P365-P368 (May 20, 1957). (1707)

Construction and operation of a new type of tester in which apparel fabric specimens are tumbled inside a rubber-lined cylinder in the presence of a small amount of cotton lint are described. The fuzz and pills formed correlated well both in amount and appearance with wear on garments from the same fabrics. Photographs. Graph.

MEASURING THE REGULARITY OF FABRICS FROM THEIR TRANSPARENCY: A NEW TECHNIQUE. A. Barella and J. Cegarra. Revue Textile 55, No. 6: 374-378 (1956). In French. Through BCIRA 36: 598 (1956). (1708)

Three techniques for measuring the transparency of fabrics are described: (1) the use of colored filters, (2) examination of the fabrics through a neutral grey filter so as to eliminate the effect of its color, and (3) dyeing the fabric samples to be examined black. The last technique was found the most satisfactory. The variation coefficient is in direct relationship to the internal regularity of the fabric. In order to obtain comparable results, the average illumination received by the photocell must be the same for all samples examined.

DIMENSIONAL STABILITY OF WARP-KNITTED NYLON FABRICS: BOILING WATER TEST. J. Textile Inst. 48: P281-P282 (Apr. 1957). (1709)

Tentative textile standard no. 43.

TENTATIVE STANDARD METHOD OF TEST AND ASSESSMENT FOR PROOFNESS OF WOOL SERGE AGAINST THE COMMON (WEBBING) CLOTHES MOTH. International Wool Textile Organisation. J. Textile Inst. 48: P285-P291 (Apr. 1957). (1710)

OTHER E 4

RAPID METHOD OF DETERMINING WATER AND FATTY SUBSTANCES ON A SINGLE SAMPLE OF FIBERS. A. Parisot. Bull. Inst. Textile France No. 60: 53-59 (May 1956). In French. Through BCIRA 36: 628 (1956). (1711)

Water is determined by extracting it with dry air under weak pressure and at a relatively low temperature (60° C), using the apparatus and method described by A. Garin; the fatty material is then estimated on the anhydrous sample by dissolving it in a known quantity of a suitable solvent and determining the concentration of the solution by evaporating an aliquot fraction and weighing the remainder.

LARVAL TESTING OF MOTHPROOFED WOOL SERGE: TENTATIVE SPECIFICATION. International Wool Textile Organisation. J. Soc. Dyers Colourists 73: 161-165 (Apr. 1957). (1712)

INDUSTRIAL ENGINEERING F

MANAGEMENT PROBLEMS IN COMPETITIVE INDUSTRY. PART 1. FORECASTING COST BEHAVIOR. H. H. Norcross. Textile Merc. 136: 710-717 (Apr. 26, 1957). (1713)

Some of the forces influencing the behavior of costs are discussed, including meeting fluctuations in demand, introduction of a night shift, launching a new product, moving to a new factory, and installing automatic machinery.

MACHINERY AND MAINTENANCE F 1

A NEW INSTRUMENT FOR MEASURING CAMBER ON LARGE ROLLS. P. W. Harrison. Machinery 89: 642-646 (Sept. 14, 1956). Through BCIRA 36: 593 (1956). (1714)

The instrument described makes use of Young's interference fringe patterns to provide an optical datum plane to which the surface contour of the roll can be referred. Rolls on which the apparatus can be used range up to 25 ft. long and from 1 ft. to 15 ft. in diameter.

QUALITY CONTROL F 3

CONFIDENCE THROUGH QUALITY CONTROL. W. Burkhart. Textil-Praxis 12: 25-29 (Jan. 1957). In German. (1715)

Sampling problems are discussed using examples of spectrographs and nep counts.

PATENT CHECKLIST

U.S. patents may be obtained from the U.S. Patent Office, Washington, 25, D.C., for 25¢ a copy. Photostatic copies of foreign patents are also available. Charges for these photostats are based on the number of pages in the patent.

PATENTS: FIBERS/YARN PRODUCTION
Abstr. 1716 - 1720

PATENTS: YARN PRODUCTION
Abstr. 1721 - 1725

FIBERS A

MAN-MADE FIBERS A 2

CONVERTING CONTINUOUS NYLON FILAMENT INTO STAPLE FIBER. F. A. Preston (to Deering Milliken Research Corp.). USP 2 784 458, Mar. 12, 1957. (1716)

Apparatus for stretch breaking and drafting continuous nylon and other filaments while subjecting them to transverse oscillation at a frequency within 10 to 2,000 cycles per second.

YARN PRODUCTION B

CONTINUOUS OPENING OF CRIMPED CONTINUOUS FILAMENT TOW. J. W. Smith (to Eastman Kodak Co.). USP 2 790 208, Apr. 30, 1957. (1717)

FALSE TWIST APPARATUS FOR CRIMPING SYNTHETIC YARN. A. Kunzle (to Heberlein Patent Corp.). USP 2 790 298, Apr. 30, 1957. (1718)

High-speed false-twist apparatus for crimping a number of yarns simultaneously.

OPENING, PICKING, FIBER PREPARATION B 1

OPENERS FOR COTTON OR OTHER FIBERS. B. Hamblett and J. Lighthill. BP 748 640, May 9, 1956. Through BCIRA 37: 99 (1957). (1719)

The invention relates to openers in which an endless conveyor carries lumpy masses of cotton against a series of closely-spaced, saw-toothed cylinders rotating in one direction at the back of a working chamber so that the cotton circulates in the form of a loose roll. The peripheral fibers are continuously picked up by the saw teeth and stripped by co-acting doffer cylinders that direct the lint into suction flues. The endmost saw cylinders cooperate with the front end wall of the chamber to give the roll of fiber a generally oval configuration; these cylinders have their individual suction-flue intakes, and all of them except the last have co-acting doffers.

FIBER OPENER AND CLEANER. I. Barnett (to Johns-Manville Corp.). USP 2 789 319, Apr. 23, 1957. (1720)

Apparatus for opening and cleaning masses of relatively short, weak, brittle fibers, such as mineral wool.

CARDING AND COMBING B 2

DEVICE FOR COILING SLIVER INTO CANS. O. Steinwandt (Germany). BP 767 070, Jan. 30, 1957. (1721)

DRAWING AND ROVING B 3

STOP MECHANISMS FOR DRAWING MACHINES. A. S. Gillies (to Fairbairn Lawson Combe Barbour Ltd). BP 748 238, Apr. 25, 1956. Through BCIRA 37: 99 (1957). (1722)

A cranked detector having two arms is mounted below a drafting zone. Sliver passing over one arm holds it in a normal position so long as the sliver is intact but if a failure occurs the detector tilts and the other arm comes into contact with a bus-bar and opens or closes a stop circuit.

SUPPORTING AND WEIGHTING MEANS FOR THE UPPER DRAFTING ROLLS. J. Benyon (to T. M. M. (Research) Ltd). BP 748 844, May 9, 1956. Through BCIRA 37: 99 (1957). (1723)

The upper rolls are supported at their ends between two pivotal arms (independent of arms supporting axially adjacent rolls) incorporating roll-loading springs energized when the arms are locked in the operative position. Each pair of arms and their rolls may be moved as a unit in and out of the operative position. Two sheets of illustrations relate to the drafting apparatus of a roving frame.

SPINNING, WINDING, TWISTING B 4

SPINDLE BEARINGS. H. Sunderland. BP 748 321, Apr. 25, 1956. Through BCIRA 37: 100 (1957). (1724)

Apparatus for changing the oil supplied to the bolsters of a set of ring spindles consists of a cradle that travels on hooks along the doffing box rail and is fitted with an oil reservoir, a rotary pump, a gallery pipe, and suction or delivery branches the free ends of which can be disposed within or above the bolsters after removing the spindles.

DRAFTING HEADS FOR SPINNING MACHINES. VEB Spinnereimaschinenbau Karl-Marx-Stadt. BP 767 375, Jan. 30, 1957. Through BCIRA 37: 99 (1957). (1725)

Weighting arrangements for roller drafting systems.

TENSION REGULATOR FOR MOVING YARN. J. M. Massey (to Deering Milliken Research Corp.). USP 2 790 611, Apr. 30, 1957. (1726)

FALSE TWIST SPINDLE MOUNTING. R. G. Hilbert, D. G. Soussloff and R. V. Tata (to Universal Winding Co.). USP 2 791 086, May 7, 1957. (1727)

YARN WINDING TERMINATION DEVICE. S. Fürst (to Walter Reiners). USP 2 791 384, May 7, 1957. (1728)

Device for preventing bulge formation in a take-up spool which is no longer driven but continues to rotate due to inertia.

LUBRICATION ARRANGEMENT FOR SPINNING RINGS. J. Raboisson (to Manufacture Alsacienne de Broches). USP 2 791 880, May 14, 1957. (1729)

Lubrication supply wick fitted into the annular groove of a spinning ring and extending through holes opening into its traveler-engaging bearing face.

FABRIC PRODUCTION C

WARPING, SLASHING, YARN PREPARATION C 1

UNWINDING YARN FROM A PACKAGE. J. H. Brown (to N. Corah (St. Margaret) Ltd). BP 748 288, Apr. 25, 1956. Through BCIRA 37: 102 (1957). (1730)

A mounting for holding a package of yarn during unwinding consists of an open-topped tubular housing (of transparent material) with an upstanding boss on which the package is fixed and an endless elastic strip threaded through the wall so as to pass around parts of the outside wall and across the inside, where the strip embraces the package and confines the turns of yarn as unwinding proceeds. A ring of sponge rubber may be fitted around the boss.

PIRN OR CONE HOLDER. E. J. McBride. USP 2 790 610, Apr. 30, 1957. (1731)

Positioning device for holders using snap-on spring action instead of set screws.

AUTOMATIC START-STOP CONTROLLER FOR WARPING AND BEAMING MACHINES. E. J. Spencer. USP 2 791 820, May 14, 1957. (1732)

WEAVING C 2

SHUTTLES. J. Dawson (to T. Dawson (Shuttlemakers) Ltd). BP 748 663, May 9, 1956. Through BCIRA 37: 102 (1957). (1733)

To maintain the alignment of the shuttle tong during weaving, the head of the tong is formed with a downward extension the face of which is vertical in the weaving position, and a stop is carried by the head of the shuttle, either the stop or a member carried by the vertical face being adjustable longitudinally of the shuttle.

APPARATUS FOR FEEDING BOBBINS TO A DELIVERY POINT. L. V. Hewitt (to Courtaulds Ltd). BP 748 732, May 9, 1956. Through BCIRA 37: 101 (1957). (1734)

Apparatus for feeding, with a given orientation, empty bobbins with flanges of unequal diameter consists of a device for forwarding bobbins from a receptacle to an inclined tunnel from the roof of which hangs an aligning guide that cooperates with a turning stop on the floor.

AUTOMATIC WARP BREAKAGE STOP MOTIONS. J. Jabonley (to Fras. Hinde & Sons Ltd). BP 767 026, Jan. 30, 1957. Through BCIRA 37: 103 (1957). (1735)

An electrically operated warp stop motion, suitable for use with circular looms as claimed in BP 681 610.

SHUTTLES. G. Bell and A. G. Thompson (to Tootal Broadhurst Lee Co. Ltd). BP 767 030, Jan. 30, 1957. Through BCIRA 37: 102 (1957). (1736)

Reinforcement with synthetic resins (e.g. phenolformaldehyde) of the faces of the shuttle most subject to wear is described.

PNEUMATICALLY OPERATED HARNESS FRAMES AND HEDDLES FOR HEAVY FABRIC LOOMS. S. Battner (to C. R. Daniels, Inc.). USP 2 790 465, Apr. 30, 1957. (1737)

PILE WIRE LOOM ATTACHMENT. J. C. Englehart, C. Johnson and W. T. Cain (to Magee Carpet Co.). USP 2 790 466, Apr. 30, 1957. (1738)

Bar, for pile wire loom, which maintains the loops in separate relation when released from the withdrawn wire, without interfering with the twisting of the individual loops.

AUTOMATIC TEMPLE KNIFE ATTACHMENT. E. P. Cashion and D. Friddle. USP 2 791 242, May 7, 1957. (1739)

Attachment for temple knife to ensure cutting of thread ends resulting from bobbin changing.

WARP LETOFF CONTROL. G. E. Clentimack (to Draper Corp.). USP 2 792 023, May 14, 1957. (1740)

Letoff control which responds to and compensates for permanent changes in tension but is not affected by periodic variations.

LUG STRAP SUPPORT. W. Herron. USP 2 792 024 and 2 792 025, May 14, 1957. (1741)

One (2 792 025) and two (2 792 024) piece lug strap supports adapted to be clamped against the picker stick with a U-bolt.

CIRCULAR LOOM STOP MOTION. M. Thibaut and A. Berquier (to Soc. d'Applications Generales d' Electricite & de Mecanique). USP 2 792 027, May 14, 1957. (1742)

Stop motion for circular looms which is actuated when a feeler detects a weft fault.

KNITTING C 3

SINKER HEAD FOR FULL-FASHIONED KNITTING MACHINES. W. E. Sheeler (to Textile Machine Works). USP 2 790 313, Apr. 30, 1957. (1743)

Sinker head with needle beard pressing surface for preventing needle beard deflection during beard closing action.

YARN CARRIER ROD ALTERNATING ATTACHMENT FOR KNITTING FULL-FASHIONED STRETCH HOSIERY. F. E. Deaton and C. Bingenheimer (to Burlington Industries). USP 2 790 314, Apr. 30, 1957. (1744)

STITCH SUPPORTING ATTACHMENT FOR FLATBED, SPRINGBEARD NEEDLE TYPE KNITTING MACHINES. R. J. Good (to Fred C. Good & Sons). USP 2 791 896, May 14, 1957. (1745)

Attachment for converted hosiery machine which prevents the loops of the old courses from sagging into the new course being knitted and causing tuck or split stitches.

FABRICS C 4

BANDAGES, DRESSINGS, ETC. T. E. Thompson and E. L. Carus (to Alexander Carus & Sons Ltd). BP 748 423, May 2, 1956. Through BCIRA 37: 109 (1957). (1746)

Self-adhesive bandages that adjust themselves to most surfaces and permit flexing of the bandaged limb are prepared by immersing woven or knitted cotton fabrics in caustic soda of mercerizing strength and allowing free shrinkage in all directions. The process is limited to woven fabrics having 20–100 threads per sq. inch and weighing not more than 50 g per sq. yard and to knitted fabrics of similar weight made with not more than 25 needles per inch.

TUFTED CARPET MACHINE. W. Ebersold (to James Lees & Sons Co.). USP 2 784 688, Mar. 12, 1957. (1747)

For making tufted carpets with exactly parallel side edges.

TUFTING MACHINE FOR FORMING HIGH AND LOW LOOPS. R. S. MacCaffray, Jr. (to C. H. Masland & Sons). USP 2 784 689, Mar. 12, 1957. (1748)

Yarn feeding mechanism for producing needled pile fabrics with high and low loops.

TEXTURED PILE CARPETS. E. J. Cogovan and B. W. Peebles (to Mohasco Industries). USP 2 790 225, Apr. 30, 1957. (1749)

Pile carpets with high and low areas to give an embossed or carved effect are prepared from a blended multiply yarn containing heat-shrinkable synthetic fibers.

RESIN BONDED GLASS FIBER MATS. R. H. Sonneborn and T. E. Philipps (to Owens-Corning Fiberglas Corp.). USP 2 790 741, Apr. 30, 1957. (1750)

A powdered resinous binder is applied before a sprayable liquid binder, giving uniform binder distribution.

SPOOL CHAIN TUFTING MECHANISM. E. T. C. Brinton (to Brintons Ltd). USP 2 791 261, May 7, 1957. (1751)

PRESS FOR FORMING FUSED SELVAGES. N. Rolaston and C. C. Middleton (to Brit. Industrial Plastics Ltd). USP 2 791 265, May 7, 1957. (1752)

Mechanism for forming a reinforced or welded selvage on a single ply or laminated fabric, either all or partly thermoplastic material.

CELLULOSE FELT. P. S. Hess (to Congoleum-Nairn Inc.). USP 2 791 502, May 7, 1957. (1753)

Cellulose felt for use as a backing for floor and wall covering is prepared by impregnating a sheet of felted fibers with a modified tall oil ester followed by oxidative polymerization.

BONDING A NONWOVEN BAT TO A WOVEN SHEET. S. Converse (to Graniteville Co.). USP 2 791 529, May 7, 1957. (1754)

Insulating lining, etc., fabric made of a bonded nonwoven bat and a woven fabric bonded with an organosol containing a metallic powder.

FINISHING AND CHEMICAL PROCESSING D

MARKING WOVEN TEXTILE MATERIALS. W. Norwood. BP 748 476, May 2, 1956. Through BCIRA 37: 110 (1957). (1755)

Inscriptions required along the selvages of woven piece goods are woven into a separate cloth as a series of side-by-side strips. This cloth is coated on the back with a thermoplastic adhesive and slit into individual strips, and a strip is attached to the intended selvage by means of a machine fitted with a hot presser foot.

FISHING NETS. J. W. E. Haller (to Linen Thread Co. Ltd). BP 748 760, May 9, 1956. Through BCIRA 37: 110 (1957). (1756)

To overcome slip in the knots of fishing nets made from nylon, Terylene, or similar yarns, the net is passed under tension through a heating medium, e.g. hot water.

KNIT STRETCHABLE NYLON FABRIC. C. R. Anderson (to Munsingwear, Inc.). USP 2 791 021, May 7, 1957. (1757)

Tubular rib knit stretchable nylon fabrics with long service life are produced by heat treating the fabrics while they are under extreme tension in the direction of the knitting.

CHEMICAL PROCESSES D 1

WATERPROOFING AND CREASEPROOFING CELLULOSIC TEXTILES. R. G. Desson, L. H. Groves, J. R. F. Jackson and A. F. Morris (to Imp. Chem. Ind. Ltd). BP 748 182, Apr. 25, 1956. Through BCIRA 37: 110 (1957). (1758)

Cellulosic textiles are treated successively or simultaneously with a water-repellency agent as covered by BP 583 031 (e.g. stearamidomethoxyacetic acid) and a crease-resist agent (e.g. urea or melamine/formaldehyde).

IMPREGNATING GLASS FIBER MATERIAL. V. E. Yarsley, A. G. Goodchild and A. M. Hutcheson. BP 748 339, Apr. 25, 1956. Through BCIRA 37: 109 (1957). (1759)

The claims relate to the use of vibrations (e.g. 1,400 cycles per minute) in the impregnation of glass fiber (woven or a mat) with a polymerizable resinous bonding agent.

PRODUCTION OF COMPOSITE ARTICLES MADE OF YARNS BONDED TO POLYVINYL CHLORIDE COMPOSITIONS. B. C. Gardner and E. H. Sharples (to Courtaulds Ltd). BP 748 701, May 9, 1956. Through BCIRA 37: 109 (1957). (1760)

To effect a firm bond between a yarn (e.g. high-tenacity viscose rayon or stretched and saponified cellulose acetate) and polyvinyl chloride (e.g. in making a conveyor belt) the yarns are treated with m-phenylene diamine solution and dried. Some oxidation on the yarn may be allowed. Two examples are given in detail, with results of tests.

CREASE-RESISTANT TREATMENT OF TEXTILE FABRICS. Böhme Fettchemie GmbH (Germany). BP 767 249, Jan. 30, 1957. Through BCIRA 37: 109 (1957). (1761)

Salts of ammonia or organic bases with high-molecular organic sulfonic acids or phosphonic acids are used as condensation catalysts for the resin pre-condensate.

HIGH SPEED PROCESS FOR DESIZING AND BLEACHING COTTON FABRICS. W. A. S. White (to Imp. Chem. Ind. Ltd). USP 2 790 699, Apr. 30, 1957. (1762)

Cotton fabrics are prepared for finishing by continuously passing the open width fabric through a bath of hydrocarbon solvent for degreasing and dewaxing and through an aqueous alkaline peroxide bath for desizing and bleaching.

STABILIZATION OF NYLON YARNS AND FABRICS TO SUNLIGHT. J. M. Kuhn, F. A. Sheldon and M. Silverman (to Sherwin-Williams Co.). USP 2 790 734, Apr. 30, 1957. (1763)

Inhibiting loss of tensile strength in nylon yarns and fabrics on exposure to actinic rays by padding treatment with a copper salt of an organic carboxylic acid and curing from about 250° F to 500° F for about 10 min.

SOIL RETARDANT FABRIC. R. H. Kienle, E. S. Pierce and P. Newman (to Am. Cyanamid Co.). USP 2 790 737, Apr. 30, 1957. (1764)

Soil resistant fibers and fabrics are prepared by treatment with an aqueous emulsion of titania monohydrate.

ANTISTATIC COMPOSITION. H. Lange and K. Henkel (to Böhme Fettchemie GmbH). USP 2 790 764, Apr. 30, 1957. (1765)

Static buildup during textile processing is prevented by treatment with a composition consisting of a polyethylene oxide wax and a sulfonated fatty acid.

STABILIZING VISCOSE RAYON. J. A. Cafasso (to American Viscose Corp.). USP 2 791 484, May 7, 1957. (1766)

Shrinkproofing regenerated cellulose fabrics, e.g. viscose rayon, by impregnation with an aqueous emulsion containing an aldoketene dimer and a softening agent, e.g. hydroxyethyl cellulose, and drying under tension.

SLIP FINISH COATED FABRICS. R. H. Gerke and T. Shevzov (to U. S. Rubber Co.). USP 2 791 520, May 7, 1957. (1767)

Slip finish, nontacky, flexible, abrasion resistant lacquer coating for fabrics which consists of a terpolymer of butadiene, acrylonitrile, and methacrylic acid.

REMOVING BURNED OR SCORCHED SPOTS FROM CLOTH. M. Broos. USP 2 792 277, May 14, 1957. (1768)

Removing burned or scorched spots from cloth without removing the color by covering the spots with powdered paraffin wax and zinc oxide, moistening with hydrogen peroxide, rolling, and permitting to stand for about an hour.

NONWOVEN PILE FABRICS. A. G. Ashcroft and A. Schock (to Mohasco Industries). USP 2 792 323, May 14, 1957. (1769)

Nonwoven thick pile fabric (suitable for automobile floor covering) is prepared by adhesively flock-coating a stretchable rubberlike web base under tension, and drying in an unstretched condition.

RESIN IMPREGNATED YARN WINDINGS FOR HIGH PRESSURE FLUID RECEPTACLES. H. S. Daley and E. A. Wentz (to Specialties Development Corp.). USP 2 792 324, May 14, 1957. (1770)

NONWOVEN WEFTLESS CELLULOSE ACETATE RIBBON. J. Downing and R. J. Brown (to British Celanese Ltd). USP 2 792 325, May 14, 1957. (1771)

Weftless ribbons are prepared by bonding together a warp of parallel cellulose acetate yarns with a 1,6 hexamethylene diisocyanate-modified condensation polymer of ethylene glycol, adipic acid, and monoethanolamine and cross-linking with the hexamethyl ether of hexamethylol melamine.